

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims:

Claim 1 (currently amended): A tape carrier package structure, which comprises:

(a) a semiconductor chip having:

(a1) a plurality of I/O pads arranged along ~~the~~ sides thereof; and

(a2) a plurality of dummy pads arranged on the ~~corners~~ sides thereof at positions free of the I/O pads and spaced at the same pitch as the I/O pads, making the sides of the semiconductor chip full of the plurality of equally spaced I/O pads and dummy pads;

(b) a tape carrier having a device hole for accommodating the semiconductor chip therein and a plurality of side-situated lead-bonding areas and corner-situated lead-bonding areas surrounding the device hole;

(c) a set of inner leads, including:

(c1) a group of I/O leads, which are bonded between the respective I/O pads on the semiconductor chip and the side-situated lead-bonding areas on the tape carrier, so as to allow the semiconductor chip to be electrically connected to the tape carrier by the I/O leads; and

(c2) a group of dummy leads, which are bonded between the respective dummy pads on the semiconductor chip and the corner-situated lead-bonding areas on the tape carrier, and thereby provide firm support to the corners of the semiconductor chip, so as to hold the semiconductor chip in position with respect to the tape carrier and to enhance mechanical strength of the tape carrier package structure.

Claim 2 (original): The tape carrier package structure of claim 1, wherein the tape carrier is a TAB tape.

Claim 3 (original): The tape carrier package structure of claim 1, wherein the semiconductor chip is an LCD driver chip.

Claim 4 (original): The tape carrier package structure of claim 1, wherein the I/O pads and the dummy pads on the semiconductor chip are made of aluminum.

Claim 5 (original): The tape carrier package structure of claim 1, wherein the dummy leads are spaced at substantially the same pitch as the I/O leads.

Claim 6 (currently amended): A tape carrier package structure, which comprises:

(a) a semiconductor chip having:

(a1) a plurality of I/O pads arranged along ~~the~~ sides thereof; and

(a2) a plurality of dummy pads arranged on the ~~corners~~ sides thereof at positions free of the I/O pads and spaced at the same pitch as the I/O pads, making the sides of the semiconductor chip full of the plurality of equally spaced I/O pads and dummy pads;

(b) a tape carrier having a device hole for accommodating the semiconductor chip therein and a plurality of side-situated lead-bonding areas and corner-situated lead-bonding areas surrounding the device hole;

(c) a set of inner leads, including:

(c1) a group of I/O leads, which are bonded between the respective I/O pads on the semiconductor chip and the side-situated lead-bonding areas on the tape carrier, so as to allow the semiconductor chip to be electrically connected to the tape carrier by the I/O leads; and

(c2) a group of dummy leads, which are bonded between the respective dummy pads on the semiconductor chip and the corner-situated lead-bonding areas on the tape carrier, and thereby provide firm support to the corners of the semiconductor chip, so as to hold the semiconductor chip in position with respect to the tape carrier and to enhance mechanical strength of the tape carrier package structure, and which are spaced at substantially the same pitch as the I/O leads.

Claim 7 (original): The tape carrier package structure of claim 6, wherein the tape carrier is a TAB tape.

Claim 8 (original): The tape carrier package structure of claim 6, wherein the semiconductor chip is an LCD driver chip.

Claim 9 (original): The tape carrier package structure of claim 6, wherein the I/O pads and the dummy pads on the semiconductor chip are made of aluminum.

Claim 10 (currently amended): A tape carrier package structure, which comprises:

(a) a semiconductor chip having:

(a1) a plurality of I/O pads arranged along ~~the~~ sides thereof; and

(a2) a plurality of dummy pads arranged on the ~~corners~~ sides thereof at positions free of the I/O pads and spaced at the same pitch as the I/O pads, making the sides of the semiconductor chip full of the plurality of equally spaced I/O pads and dummy pads;

(b) a TAB tape having a device hole for accommodating the semiconductor chip therein and a plurality of side-situated lead-bonding areas and corner-situated lead-bonding areas surrounding the device hole;

(c) a set of inner leads, including:

(c1) a group of I/O leads, which are bonded between the respective I/O pads on the semiconductor chip and the side-situated lead-bonding areas on the TAB tape, so as to allow the semiconductor chip to be electrically connected to the TAB tape by the I/O leads; and

(c2) a group of dummy leads, which are bonded between the respective dummy pads on the semiconductor chip and the corner-situated lead-bonding areas on the TAB tape, and thereby provide firm support to the corners of the semiconductor chip so as to hold the semiconductor chip in position with respect to the tape carrier and to enhance mechanical strength of the tape carrier package structure, and which are spaced at substantially the same pitch as the I/O leads.

Claim 11 (original): The tape carrier package structure of claim 10, wherein the semiconductor chip is an LCD driver chip.

Claim 12 (original): The tape carrier package structure of claim 10, wherein the I/O pads and the dummy pads on the semiconductor chip are made of aluminum.